

EXHIBIT K

Evidence of Releases

Releases of hazardous wastes and hazardous constituents have been evidenced in numerous ways. This report summarizes findings established in various studies and reports which are available in the RCRA case file.

First, Master Metals contracted to have an environmental audit conducted. This audit was a prerequisite imposed by the insurance company in order for Master Metals to obtain liability insurance. The report dated February 15, 1991, was prepared by Environmental Strategies Corporation and is entitled Environmental Risk Assessment Final Report. The report indicates that releases of hazardous constituents have been documented in the soil and groundwater. The report is partially based upon groundwater and soil sampling conducted by Compliance Technologies, Inc., which is provided in a report dated January 21, 1991. Results of the groundwater analyses for four groundwater wells indicated concentrations of lead ranging from 450 to 1350 ppb, where the federal drinking water standard is 15 ppb; chromium 20 to 1330 ppb, where the federal drinking water standard is 100 ppb; nickel 40 ppb to 520 ppb, where the (proposed) federal drinking water standard is 100 ppb; cadmium 26 to 87 ppb, where the federal drinking water standard is 5 ppb; and barium 20 to 50 ppb where the federal drinking water standard is 2000 ppb. Also, the groundwater analyses showed that the groundwater exhibited a wide range of pH from 6.8 to 9.86. Hence, releases of heavy metals to the groundwater have been documented.

The study of the soils contamination by Environmental Strategies Corporation is presented in a report entitled Subsurface Investigation Report. In this report, 31 locations at or near the facility were identified for subsurface soil sampling. The results indicated that the facility is predominantly underlain by an industrial slag fill. The slag material shows contamination by heavy metals, and many of samples of the soils show elevated concentrations of heavy metals (four samples also showed a black discoloration). For example, the concentration of lead was detected as high as 14,000 parts per million (ppm). This is considered elevated relative to background in Ohio farm soil where the concentration is known to be less than 40 ppm. In addition, the soils beneath the southeastern corner of the property, the drum storage area, and the battery decasing areas at depths 8 to 10 feet below grade contain concentrations of lead exceeding 500 ppm. Some of the samples exceeded 10,000 ppm. Hence, releases of heavy metals to the subsurface have been documented.

Next, based upon three ambient lead monitors in close proximity to Master Metals, Inc., and operated by the Cleveland Division of Air Pollution Control, air monitoring results indicated that ambient lead concentrations in the immediate vicinity of the site to be extremely elevated. The National Ambient Air Quality Standard for lead is 1.5 micrograms per cubic meter of air for a calendar quarter average. In 1982, for the monitor closest to the facility, the monthly average for the ambient lead concentrations ranged from 9 to 80 with individual days as high as 117 ug/cubic meter. The quarterly average concentrations for 3 quarters were 37.42, 28.04, 23.12 micrograms (ug) per cubic meter. The same ambient air quality monitor for the first quarter of

1993, measured 16.1 ug/m³. OEPA has reported that similar results were obtained in subsequent monitoring events.

On October 14, 1992, OEPA issued Findings and Orders (F&Os) for violations of hazardous waste and air regulations. The F&Os document releases on-site and off-site in residential properties where it is suspected Master Metals sold slag as fill materials. Based upon continuing violations of the F&Os, OEPA ordered Master Metals to cease operations until it could come into compliance with the F&Os.

Another report which documents releases of hazardous constituents to the environment have occurred is the Site Assessment report, authored by the U.S. EPA Emergency Response Operations in Region 5 and dated August 13, 1992. The report indicated via visual evidence and sampling that releases of hazardous constituents have been detected in soils both on and off-site. In five of the seven surficial soil samples were obtained including two sediment/sludge samples, sample analyses results showed that leachable lead as determined by the toxicity characteristic leaching procedure (TCLP) is present in concentrations greater than 200 times the regulatory level of 5 mg/L. Several of the samples also exceeded the TCLP regulatory limit for arsenic, and cadmium. Lead is also present at high concentrations for all locations as determined by a total constituent analysis. The range of concentrations is 6,020 to 115,000 milligrams per kilogram of soil (parts per million or ppm). As previously stated, the average lead concentrations range between 9 and 39 ppm in Ohio farm soil. The report concluded that the site poses a potential threat to human health and the environment.

In March of April of 1990, an OSHA inspector collected a soil sample approximately 125 feet east of Master Metals Main Gate and found it to contain 2% lead.

A videotape of a site visit to Master Metals by U.S. EPA and OEPA on June 16, 1992, provides visual evidence of releases. The tape documents the site conditions such as uncontained waste materials, waste piles, cracked concrete beneath and adjacent to waste piles and container storage areas, damaged and inappropriately marked bins, direct waste migration routes to the combined/storm/sanitary sewer system, breaches in fences, deteriorated and opened waste containers, and mislabelled containers. (The audio component of the video tape which was created by a U.S. EPA contractor is intelligible due to the use of respirators and high background noise levels.)

In addition, on April 4, 1992, representatives of the Ohio EPA observed slag in a waste storage unit designated as the slag bin which is east of the primary baghouses. The Ohio EPA inspector obtained several samples of the material in the bin and in a pile on the ground in front of the bin. The samples analysis (sample ID K920403-1HW/WP(3)) for the pile of slag indicated that the material was hazardous because it exhibited the toxicity characteristic for arsenic, cadmium, chromium, lead, mercury, selenium, and silver. (Report, lab results and photograph are in Exhibit L). In addition, the inspector was informed by Master Metals that some of the recently generated slag was on several trucks ready to be transported to a sanitary landfill for disposal as solid waste. The Ohio inspector collected several

slag samples from the trucks. The sample analysis (sample ID K920403-1HW/#2(B)) for the slag in truck B indicated that the material was hazardous due to toxicity characteristic for arsenic, cadmium, chromium, lead, mercury, selenium, and silver. The OEPA inspector suspects that those trucks transported the slag to Browning Ferris Industries (BFI), a solid waste landfill for disposal.

U.S. EPA RCRA Enforcement Branch has observed releases of hazardous constituents and practices which would likely contribute to on-going releases. The reports document the site conditions such as uncontained waste materials, waste piles, damaged and inappropriately marked bins, breaches in fences, deteriorated and opened waste containers, among other problems. Several inspection reports including photographs are available.

Lastly, harm caused by the releases of the hazardous constituents is evidenced by the lead poisoning experienced by the workers and even several of the children of the workers as documented by the Occupational Safety and Health Administration and the Ohio Department of Health.

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